

**TOTAL PHOSPHORUS BY
LACHAT QUIKCHEM METHOD 10-115-01-1-E****PAGE 1 OF 2****“DETERMINATION OF TOTAL PHOSPHORUS BY FLOW INJECTION ANALYSIS (ACID PERSULFATE
DIGESTION)”****REVISION DATE NOVEMBER 8, 2001**

Facility Name: _____ VELAP ID: _____

Assessor Name: _____ Analyst Name: _____ Inspection Date: _____

Relevant Aspect of Standards**Method
Reference****Y****N****N/A****Comments***Records Examined:* SOP Number/ Revision/ Date _____ Analyst: _____

Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

Were all solutions except the standards degassed with helium?	7.1				
Was the Carrier Sulfuric Acid degassed daily and prepared fresh weekly?	7.1				
Was Stock Ammonium Molybdate Solution stored in plastic and refrigerated?	7.1				
Was Stock Antimony Potassium Tartrate Solution refrigerated and stored in a dark bottle for no longer than 2 months?	7.1				
Was the Ascorbic Acid Reducing Solution discarded if it became yellow?	7.1				
Was the Anhydrous Potassium Phosphate Monobasic (KH ₂ PO ₄) dried for 1 hour at 105°C before using to make Stock Standard Solution?	7.2				
Were Working Standards prepared fresh weekly?	7.2				
Wash glassware washed with 1:1 HCl and rinsed with deionized water prior to use?	4.2				
If commercial detergent was used to wash glassware, was detergent phosphate-free?	4.2				
Were samples preserved to pH < 2 with sulfuric acid and cooled ≤ 6°C and held for no longer than 28 days?	40CFR136.3 Table II				
Were MDL's determined according to 40 CFR 136, Appendix B?	9.2.1				

Notes/Comments:

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To establish the analyst's ability to generate acceptable data, did the mean and standard deviation of 10 replicates of a mid-range standard meet the requirements of Section 11.0 of the reference method?	9.2.2.2				
Were matrix spike duplicates analyzed at a minimum frequency of 10% of samples?	9.3				
Were laboratory reagent blanks subjected to the same procedural steps as samples?	9.4.1				
Did working standards go through the same digestion process as samples?	11.1.1				
Persulfate Digestion					
Did samples have 5.6 M H ₂ SO ₄ added to them prior to digestion?	11.1.2.1				
Were samples then boiled gently to a volume of 10 mL OR autoclaved for 30-minutes at 121°C, 15-20 psi?	11.1.2.2				
Were samples that contained arsenic or high levels of iron placed in a waterbath for 20-30 minutes at 95°C after having NaHSO ₃ and 1.0 N H ₂ SO ₄ added to them?	11.1.2.3				
Sulfuric Acid Digestion					
Did samples have 5.6 M H ₂ SO ₄ added to them prior to digestion?	11.1.3.1				
Were samples then boiled gently for 30-40 minutes or until 10 mL volume was achieved OR autoclaved for 30-minutes at 121°C, 15-20 psi??	11.1.3.2				
Were samples that contained arsenic or high levels of iron placed in a waterbath for 20-30 minutes at 95°C after having NaHSO ₃ and 1.0 N H ₂ SO ₄ added to them?	11.1.3.3				
Notes/Comments:					